



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/686,585	10/17/2003	Hirofumi Shimizu	023971-0321	9363

22428 7590 01/21/2005

FOLEY AND LARDNER
SUITE 500
3000 K STREET NW
WASHINGTON, DC 20007

EXAMINER

PANG, ROGER L

ART UNIT	PAPER NUMBER
----------	--------------

3681

DATE MAILED: 01/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/686,585

Applicant(s)

SHIMIZU ET AL.

Examiner

Roger L Pang

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 10-14-03
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____

DETAILED ACTION

The following action is in response to application 10/686,585 filed on October 17, 2003.

Specification

The disclosure is objected to because of the following informalities: on page 11, part 34 is described as being "an annular ridge," however, beginning on page 12, part 34 is referred to as "wiring." Two different parts cannot have the same label.

Appropriate correction is required.

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "34" has been used to designate both an annular ridge (Fig. 4) and wiring (Fig. 2). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 3681

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With regard to claims 1, 2, 12 and 13, the use of the phrase "consisting of" is incorrect. Applicant should use the phrase --comprising of-- to claim limitations of a part without limiting the part to only those limitations.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Oshidari '847 in view of Nakano '081. With regard to claim 1, Oshidari teaches a hybrid transmission comprising: a housing having a common axis defined thereby, the housing Hm/Ha adapted to be positioned beside an engine Eg when the hybrid transmission is mounted on a motor vehicle; a differential speed change unit p1/p2 installed in the housing at a position near the engine and arranged coaxial with the common axis; a tow-rotor type motor/generator unit MG_i/MG_o installed in the housing at a position away from the engine and arranged coaxial with the common axis, the motor/generator unit having inner R_{mi} and outer R_{mo} rotors; an inner rotor shaft J_{mi} connected with the inner rotor to rotate therewith, the inner rotor shaft being hollow and coaxial with the common axis and extending to the differential speed change unit to be operatively connected to the same (Fig. 4A); and an outer rotor shaft J_{mo} rotatably received in the hollow inner rotor shaft and extending to the differential speed change unit to be operatively

Art Unit: 3681

connected to the same, the outer rotor shaft being connected to the outer rotor at one axial end of the motor/generator unit that is positioned at one axial end of the motor/ generator unit that is opposite to the other axial end that faces the differential speed change unit (Fig. 4A), wherein an outer rotor assembly substantially comprising of the outer rotor Rmo and the outer rotor shaft Jmo is rotatably supported in the housing by means of at least three supporting members (Fig. 4A). Oshidari lacks the specific teaching of said outer rotor being attached to the outer rotor shaft by a circular drive plate. Nakano teaches a double rotor motor/generator wherein an outer rotor 30 is connected to a hollow outer rotor shaft 23a by a circular drive plate 23. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oshidari to employ a circular drive plate in view of Nakano, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. *Nerwin v. Erlichman*, 168 USPQ 177, 179. With regard to claim 2, Oshidari in view of Nakano teach the transmission, in which a structurally larger part of the outer rotor assembly which substantially comprises of the outer rotor and the circular drive plate is rotatably supported by two of the supporting members (Oshidari: Fig. 4A; top left 2 bearings), and a structurally smaller center part of the outer rotor assembly which substantially comprises of the outer rotor shaft is rotatably supported by the remaining one of the supporting members (Oshidari: Fig. 4A; middle left bearing). With regard to claim 3, Oshidari in view of Nakano teach the transmission, in which the circular drive plate is formed at its diametrically center portion with a cylindrical hub portion in which an axial end portion of outer rotor shaft is concentrically received through a spline connection (Nakano: Fig. 9).

Art Unit: 3681

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Oshidari in view of Nakano in view of Seguchi '653. See rejections of claims 1 and 2 above. Oshidari lacks the specific teaching of a wiring for the two-rotor type motor/generator. Seguchi teaches a two-rotor type motor/generator (Fig. 1) with wiring (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Oshidari to employ wiring in view of Seguchi, in order to power and receive power from the motor/generators.

Allowable Subject Matter

Claims 4-11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 13 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vaghani, Nippondenso, Nakano '104, Minagawa, and Yamauchi have been cited to show similar transmission/motor arrangements.

FACSIMILE TRANSMISSION

Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (703) 305-3597. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place

Art Unit: 3681

the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (703) 305-3597) on _____ (Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark

Art Unit: 3681

Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Roger L Pang whose telephone number is 703-305-0445 (517-272-7095 post move to Alexandria). The examiner can normally be reached on 5:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor can be reached on 703-308-0830. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Roger L Pang
Patent Examiner
Art Unit 3681

January 18, 2005